

Remarks/Arguments

Claims 1, 4, 8 and 11 have been amended. The Abstract has been amended. Claims 2-3 and 9-10 have been canceled.

The Examiner has rejected applicant's claims 1-14 under 35 USC 103(a) as unpatentable based on the Choi, et al. patent (US Patent No. 6,285,408) taken in view of the Hayashi, et al. patent (US Patent No. 6,825,948) and in further view of the Hazra patent (US Patent No. 6,510,553). With respect to applicant's claims, as amended, these rejections are respectfully traversed.

Applicant's independent claims have been amended to better define applicant's invention. More particularly amended independent claim 1 recites an image processing apparatus comprising: a reception unit that receives at least three encoded image data via a serial bus; a decoding unit that decodes one of the received encoded image data to generate a main frame; a sub frame generating unit that extracts low frequency component from each one of the other received encoded image data, and generates sub frames from the extracted low frequency components; and an image signal generating unit that combines the main frame and the sub frames, and generates an image signal including the main frame combined with the sub frames. Corresponding method claim 8 has been similarly amended.

In particular, amended claim 1 now requires that the an image processing apparatus of the present invention be arranged to receive at least three encoded image data via a serial bus, decode one of the received encoded image data to generate a main frame, and extract a low frequency component from each one of the other received encoded image data to generate sub frames from the extracted low frequency components. Such a construction is not taught or suggested by the cited art of record.

In the Office Action, the Examiner states that the Choi, et al patent fails to teach

generating a sub frame using a low frequency component extracted from encoded image data other than encoded image data of a main frame. In this connection, it should be noted that the Choi, et al. patent also does not disclose receiving at least three encoded image data via a serial bus, since Fig. 5 shows that a transport TS/PS demux 103 receives TS1, TS2 and PS from different units, respectively and further does not show use of the IEEE1394 standard.

The Hayashi, et al. patent discloses a sub frame data reading section 44 reading out image data of a sub frame from an image data file 25 (Fig. 3 and column 5 lines 1-3). However, as argued in applicant's previous response, the only statement in this patent of how to generate sub frames is that the image data for a frame is compressed by decimation or the like (Column 4, lines 19-21; column 5, lines 1-11). This patent thus also does not disclose or suggest extracting the low frequency component from each one of encoded image data other than the encoded image data of a main frame to generate sub frames from the extracted low frequency components, nor does it teach or suggest that the encoded image data be received via a serial bus.

The Hazra patent discloses displaying a PIP picture screen including a main frame and sub frame (Fig.3). However, in the Hazra patent, the video stream comprises a base layer of a first bandwidth and an enhancement layer of a second bandwidth, with the first bandwidth being a low bandwidth, and the sub frame data is derived from the base layer and the main frame from enhancement layer. The use of multiple layers for the video stream in the Hazra patent, however, is not a teaching or suggestion of extracting the low frequency component from each one of encoded image data other than the encoded image data of a main frame to generate sub frames from the extracted low frequency components, nor does the Hazra patent teach or suggest that the encoded image data be received via a serial bus.

Applicant's amended claims 1 and 8, and their respective dependent claims, in reciting

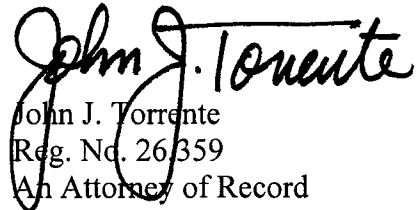
in one form or another, “a reception unit that receives at least three encoded image data via a serial bus; a decoding unit that decodes one of the received encoded image data to generate a main frame; a sub frame generating unit that extracts low frequency component from each one of the other received encoded image data, and generates sub frames from the extracted low frequency components; and an image signal generating unit that combines the main frame and the sub frames, and generates an image signal including the main frame combined with the sub frames”, thus patentably distinguish over the combination of the Choi, et al., Hayashi, et al. and Hazra patents.

In view of the above, it is submitted that applicant’s claims, as amended, patentably distinguish over the cited art of record. Accordingly, reconsideration of the claims is respectfully requested.

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COWAN, LIEBOWITZ & LATMAN, P.C.
1133 Avenue of the Americas
New York, New York 10036-6799
T (212) 790-9200

Respectfully submitted,


John J. Torrente
Reg. No. 26359
An Attorney of Record